

Presentation to:

I lowa Freight Advisory Council

November 22, 2013

Mark Masteller – Chief Landscape Architect

# Phase I – Document the rest area needs throughout the state Completed April 2013

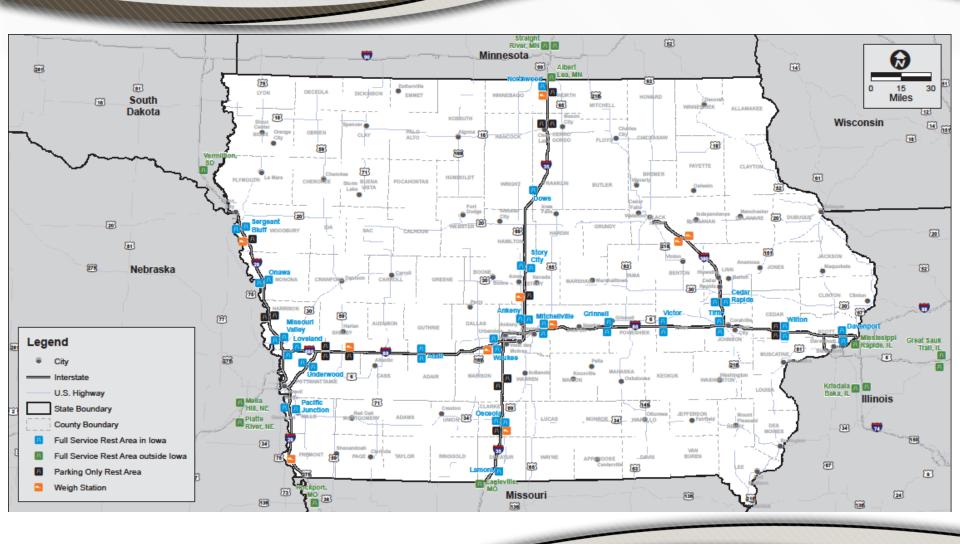
http://www.iowadot.gov/pim/raManagementPlan.html

Phase II – Develop an implementation plan to lead future investment decisions

Completion Fall of 2013



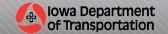
#### Iowa Interstate Rest Areas





## Needs

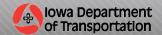
	Т									Como	1									
			NT.	1 60	1	1	1	1	1	Serv	ice									
			Nu	mber of Spa	ices	-									_					
Rest Area	Mile Post	Year Built	Car Parking (Non- Handicap)	Handicap Parking	Fruck Parking	Car / Pickup with Trailer Parking	Restroom Facilities	Family Restroom Facilities	Handicap Accessible Facilities	Picnic Facilities		Pet Exercise Area	Telephone Services	TDD <sup>2</sup>	Traveler Information	RV Dump Station	Vending Machines	Wi-Fi		
THE OF THE OF			0 1					Rest Areas						1.2		100				
Pacific Junction NB	38	1974	26	2	15	<b>√</b>	<b>✓</b>		<b>✓</b>	<b>√</b>		/	<b>√</b>	✓	✓	✓	<b>✓</b>	✓		
Pacific Junction SB	22	1001	20	-	1	1 /	- 2		7	1 2		9	7 1	,	7		7	.9		
Missouri Valley NB								1				1	Service	_	_	_	1	1	1	
Missouri Valley SB						Num	ber of Space	s ·				800					-			
Onawa NB						è	0.0		ے	ics	_	Handicap Accessible Facilities		_	8		Traveler Information	_	8	
Onawa SB						Car Parking (Non- Handicap)	Handicap Parking	20	Car / Pickup with Trailer Parking	Restroom Facilities	Family Restroom Facilities	SSS	8	Pet Exercise Area	Services		l ĝ	Dump Station	Vending Machines	
Sergeant Bluff NB						) g	Par	Truck Parking	윤철	Fac	Str	Acc	Picnic Facilities	se /	S		<u></u>	Sta	Jac	
Sergeant Bluff SB				Mile Post	Year Built	iz de	d b	Par	Pa Pa	E O	R S	ics ap	Fac	erc	Telephone		E .	di	l Su	
				e P	r B	Pau	ğ	3	/ P	CT.	la la	i di	nic	Ex	l d	TDD 2	vel	Da	dir	ıĔ
Lamoni NB/SB	Rest A	rea		Mil	Xea	Har Gr	Har	르	T Zar	Res	Far	Han	Pic	Pet	Tel	1 6	트	RV	Ver	Wi-Fi
Osceola NB	ola NB																			
Osceola SB		wood EB		19	2007	24	2	15	✓	✓	✓	✓	1	✓	<b>✓</b>	✓	✓	✓	✓	✓
Ankeny NB 3		wood WB		19	1969	26	2	16	✓	✓		✓	<b>✓</b>	/	<b>/</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	✓	✓
Ankeny SB 3	Adair I			81	2002	33	4	12	<b>V</b>	1	<b>/</b>	·	1	1	· /	·	· /	/	V	<b>/</b>
Story City NB	Adair V			80	2011	38	2	12	✓ ✓	· ·	✓	· /	· /	1	· ·	1	<b>/</b>	· /	<b>/</b>	✓ ✓
Story City SB	Wauke			119 119	1969 1969	30 31	2	22	· /	<b>/</b>			· ·	· /	\ \ \	· /	+ <del>'</del>	\ \ \ \ \	· /	<b>✓</b>
Dows NB/SB		ellville EB		147	1966	47	2	24	/	· /		-	-	/	+ -	+ -	<b>+</b> •	<u> </u>	· /	/
Northwood NB/SB		ellville WB		147	2002	54	3	22	38.0		1	-	· /	1	1	+ ;	<del>-</del>	1	· /	/
	Grinne			180	1999	30	2	25	1	1	1	1	1	1	1	1	1	1	/	1
	Grinne			180	1966	23	2	10	✓	✓		<b>/</b>	1	V	1	/	·		<b>✓</b>	/
	Victor	EB		208	1967	87	3	22	✓	✓		1	/	V	1	·	_	/	<b>V</b>	✓
	Victor			208	1967	72	3	19	✓	✓		1	1	<b>V</b>	<b>/</b>	<b>/</b>	✓	<b>/</b>	<b>✓</b>	✓
	Tiffin I			237	2010	71	4	23		✓	✓	✓	✓	✓	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
	Tiffin V			237	2001	77	6	23	✓	✓	✓	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	·	<b>✓</b>	/	<b>✓</b>	✓
	Wilton			270	2002	36	2	16	<b>V</b>	·	<b>/</b>	V	V	·	· ·	· /	· /	· /	· ·	<b>V</b>
	Wilton	SUBSECTION OF THE PROPERTY OF		270	1999	40	2	15 <sup>3</sup>	<b>V</b>	<b>*</b>	✓	·	<b>*</b>	·	· ·	<b>/</b>	_ <u> </u>	<b>✓</b>	<b>V</b>	<b>/</b>
		port EB		300	1966	39	2	14	1	<b>√</b>		1	<b>V</b>	V	· ·	<b>√</b>	V	-	V	<b>√</b>
	Daven	port WB		300	2001	46	4	20	✓	1.380.1	Rest Areas	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		<b>✓</b>	✓
	Codar	Rapids NB	ì	13	2012	26	2	16	V	1-380 l ✓	Rest Areas ✓	· ·	· ·	· ·	· ·	· ·		· ·	· ·	<b>✓</b>
		Rapids NB		13	1975	26	2	15	V	· /		· ·	\ \ \ \	· /	\ \ \ \	+ 🗸	<del>                                     </del>	+ ·	· /	/
	Cedar	implies of		1.7	1515	20	-	1.7			Rest Areas	_	_							
	Lovela	nd EB		16	1970	16	2	10 <sup>3</sup>	V	<b>√</b>		<b>/</b>	· /	V	· /	T		T	ľ	<b>/</b>
		nd WB		18	1970	50	2	15 <sup>3</sup>		1		/	/	/	1	_				/
	Lovein				421.5			17				1		1				1	12	



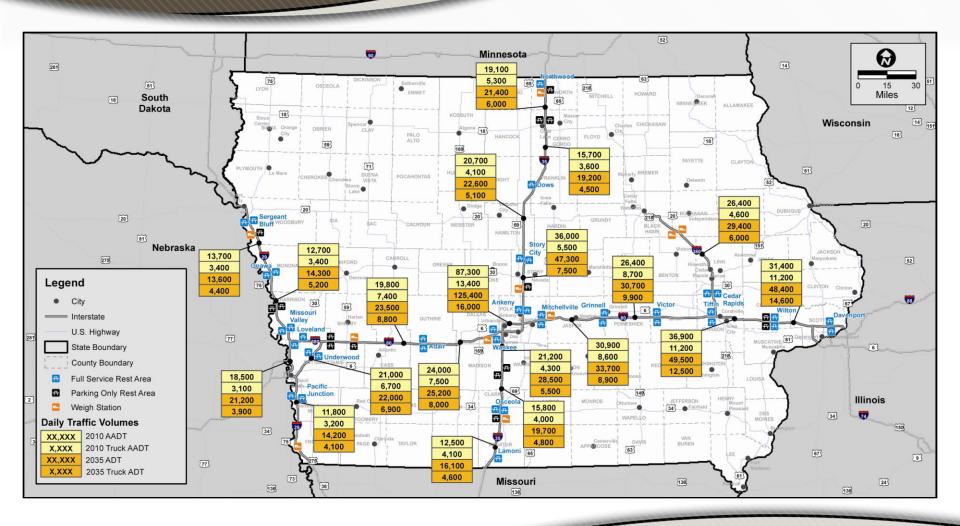
#### Rest Area Use

Rest Area	Mile Post	, , , , , , , , , , , , , , , , , , , ,		Time of Peak Volume	Daily Volume	% Trucks at Rest Area	Mainline AADT <sup>1</sup>	Capture Rate <sup>2</sup>
				1-29				
Pacific Junction NB	38	38	99	2:00 PM	910	25%	10200	8.90%
Pacific Junction SB	38	21	46	12:00 PM	515	32%	10200	5.00%
Missouri Valley NB	79	16	40	12:00 PM	385	33%	6500	5.90%
Missouri Valley SB	79	22	44	1:00 PM	520	21%	6500	8.00%
Onawa NB	110	22	51	10:00 AM	529	27%	6100	8.70%
Onawa SB	110	15	31	11:00:00 AM/ 2:00PM	362	31%	6100	5.90%
Sergeant Bluff NB	139	19	45	10:00 AM	449	33%	9300	4.80%
Sergeant Bluff SB	139	21	47	12:00 PM	504	34%	9300	5.40%
				1-35				
Lamoni NB	7	23	56	3:00 PM	554	30%	6300	8.80%
Lamoni SB	7	14	57	7:00 PM	338	22%	6300	5.40%
Osceola NB 3	33	13	24	12:00 PM	309	55%	7000	4.40%
Osceola SB 3	33	10	23	12:00 PM/ 2:00 PM	234	48%	7000	3.30%
Ankeny NB 3	94	14	29	3:00 PM	338	43%	18600	1.80%
Ankeny SB 3	94	15	41	10:00 AM	367	35%	18600	2.00%
Story City NB 3	120	16	36	9:00 AM	381	44%	12300	3.10%
Story City SB 3	119	20	44	12:00 PM	475	37%	12300	3.90%
Dows NB/SB 4	159	31	87	11:00 AM	745	14%	13300	5.60%
Northwood NB/SB 4	214	41	95	1:00 PM	994	15%	17300	5.70%

Rest Area	Mile Post	Average Hourly Volume	Peak Hourly Volume	Time of Peak Volume	Daily Volume	% Trucks at Rest Area	Mainline AADT <sup>1</sup>	Capture Rate <sup>2</sup>
				I-80				
Underwood EB	19	38	74	4:00 PM	901	41%	9600	9.40%
Underwood WB	19	35	73	2:00 PM	837	32%	9600	8.70%
Adair EB <sup>3</sup>	81	23	47	2:00 PM	540	49%	9700	5.60%
Adair WB <sup>3</sup>	80	19	40	3:00 PM	449	48%	9700	4.60%
Waukee EB <sup>3</sup>	119	21	39	1:00 PM	498	56%	17000	2.90%
Waukee WB 3	119	22	46	9:00 AM	538	51%	17000	3.20%
Mitchellville EB 3	147	18	33	8:00 AM	434	57%	14700	3.00%
Mitchellville WB 3	147	22	48	11:00 AM/ 2:00 PM	522	54%	14700	3.60%
Grinnell EB	180	33	68	9:00 AM/ 10:00 AM	798	29%	14200	5.60%
Grinnell WB	180	33	67	12:00 PM	786	34%	14200	5.50%
Victor EB	208	33	63	9:00 AM	780	30%	13400	5.80%
Victor WB	208	33	63	2:00 PM	801	33%	13400	6.00%
Tiffin EB	237	32	64	10:00 AM	762	32%	14900	5.10%
Tiffin WB	237	31	64	9:00:00 AM/ 12:00 PM	746	35%	14900	5.00%
Wilton EB	270	32	80	11:00 AM	762	27%	16600	4.60%
Wilton WB	270	34	75	10:00 AM	812	37%	16600	4.90%
Davenport EB	300	28	52	10:00 AM	669	41%	13800	4.80%
Davenport WB	300	46	90	9:00 AM	1115	33%	13800	8.10%
	72			I-380				
Cedar Rapids NB	13	30	59	10:00 AM	716	37%	24700	2.90%
Cedar Rapids SB	13	33	68	11:00 AM	803	36%	24700	3.30%
r 1 1mm	1 12	-		I-680		200	2700	2 224
Loveland EB	16	9	21	4:00 PM	224	28%	2500	9.00%
Loveland WB	18	13	34	10:00 AM	315	29%	2500	12.60%



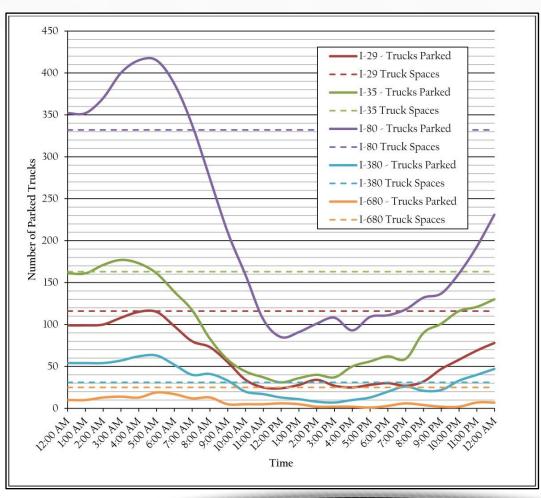
#### Traffic





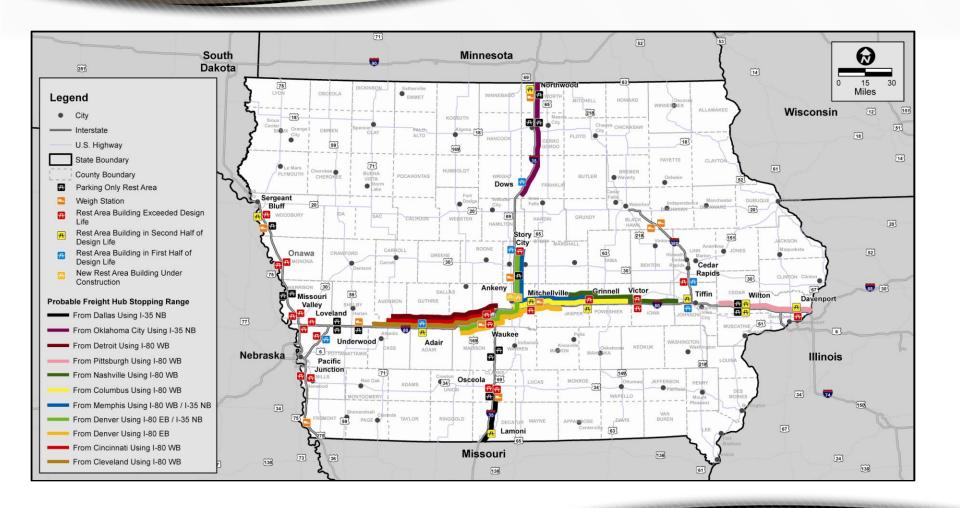
# Truck Parking – Peak Usage

		Number of Truck	Average Hourly		Time at Peak						
Rest Area	Mile Post	Spaces	Utilization	Peak Utilization	Utilization						
		· · · ·	I-29								
Pacific Junction NB	38	15	64%	127%	12:15 AM						
Pacific Junction SB	38	15	44%	67%	4:00 AM/6:00 AM						
Missouri Valley NB	<mark>79</mark>	13	49%	108%	3:00 AM						
Missouri Valley SB	79	13	60%	115%	3:15 AM						
Onawa NB	110	<mark>16</mark>	43%	106%	3:00 AM						
Onawa SB	110	15	37%	87%	4:45 AM						
Sergeant Bluff NB	139	14	48%	114%	3:45 AM						
Sergeant Bluff SB	139	15	61%	113%	4:00 AM						
1-35											
Lamoni NB/SB	7	<u>16</u>	81%	138%	2:00 AM/4:00 AM						
Osceola NB <sup>1</sup>	33	11	92%	227%	2:15 AM						
Osceola SB 1	33	11	43%	82%	3:30 AM						
Ankeny NB <sup>1</sup>	94	5	84%	180%	8:30 PM						
Ankeny SB <sup>1</sup>	94	5	143%	280%	1:15 AM						
Story City NB <sup>1</sup>	120	16	55%	119%	6:15 AM						
Story City SB <sup>1</sup>	119	15	58%	127%	12:30 AM/2:00 AM						
Dows NB/SB	159	50	26%	62%	3:00 AM						
Northwood NB/SB	214	34	71%	115%	8:00 PM						
			I-80								
Underwood EB	19	15	75%	133%	3:00 AM						
Underwood WB	(19) (81)	16	82%	175%	1:15 AM/3:15 AM 2:30 AM						
Adair EB <sup>1</sup>	80	12	107%	208%							
Adair WB <sup>1</sup>	119	22	69%	267% 145%	2:15 AM 4:45 AM						
Waukee EB <sup>1</sup> Waukee WB <sup>1</sup>	119	22	72%	159%	4:45 AM 4:30 AM/6:00 AM						
Mitchellville EB <sup>1</sup>	147	24	(53%)	100%	2:00 AM						
Mitchellville WB <sup>1</sup>	147	22	57%	118%	3:45 AM						
Grinnell EB	180	25	41%	80%	4:15 AM						
Grinnell WB	180	10	85%	200%	4:15 AM 4:00 AM						
Victor EB	208	22	28%	59%	5:00 AM						
Victor WB	208	19	55%	142%	3:15 AM						
Tiffin EB	237	23	47%	96%	2:30 AM/4:30 AM						
Tiffin WB	237	23	49%	96%	6:00 AM						
Wilton EB	270	16	51%	94%	3:15 AM						
Wilton WB	270	15	74%	133%	5:00 AM						
Davenport EB	300	14	57%	100%	2:00 AM						
Davenport WB	300	20	101%	205%	2:15 AM						
	·		I-380								
Cedar Rapids NB	13	(16)	96%	188%	5:00 AM						
Cedar Rapids SB	13	15	109%	220%	3:15 AM						
	·	<b>-</b>	I-680	•							
Loveland EB	16	10	15%	40%	2:00 AM						
Loveland WB	18	15	39%	107%	4:15 AM						



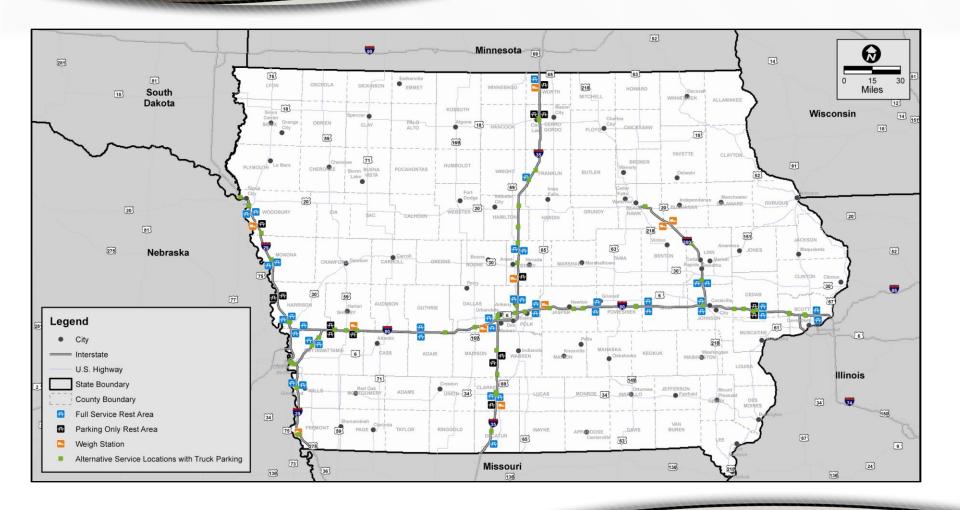


## Freight Stopping Ranges



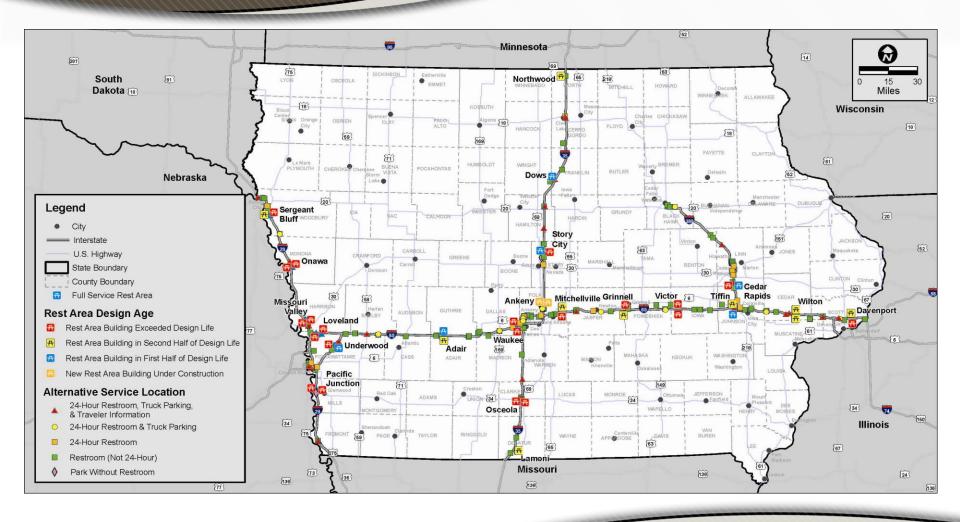


#### Truck Parking, Rest Areas and ASL's



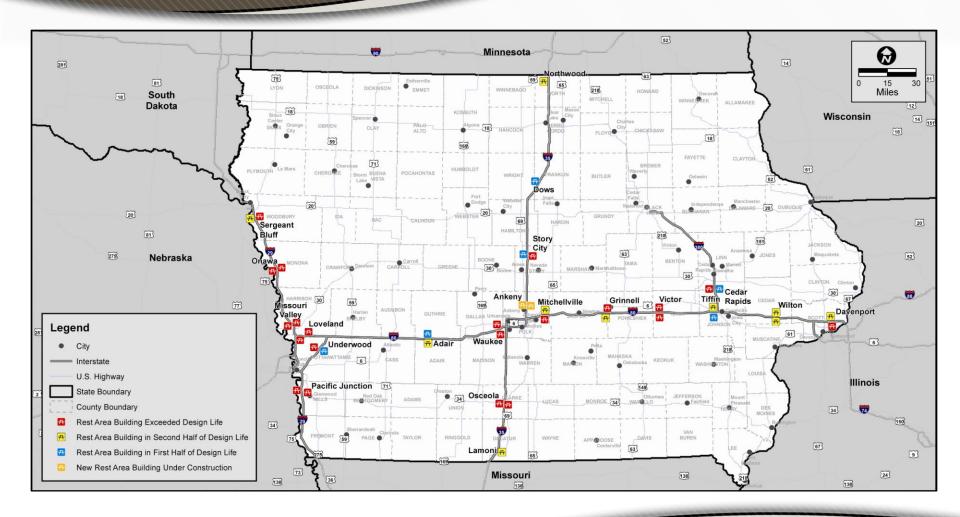


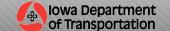
#### Rest Areas and ASL's



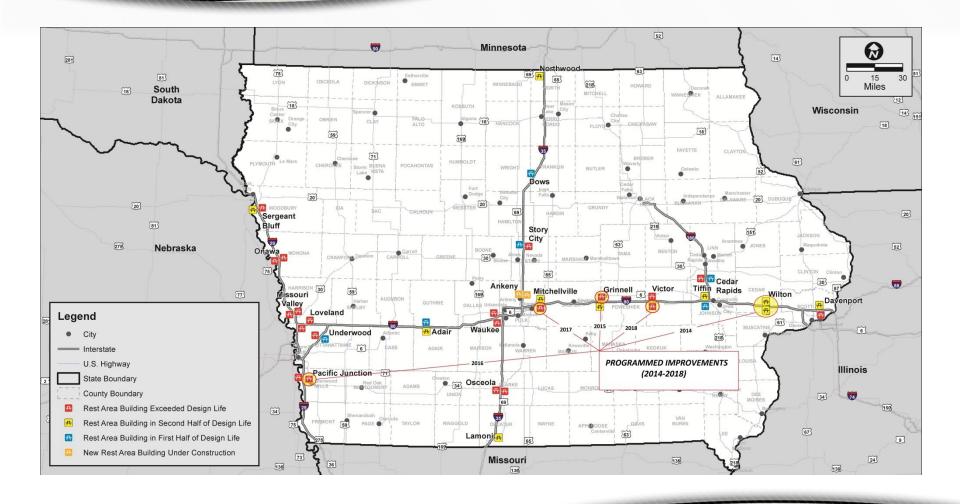


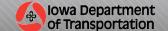
## **Aging Rest Areas**





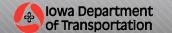
#### Programmed Building Improvements



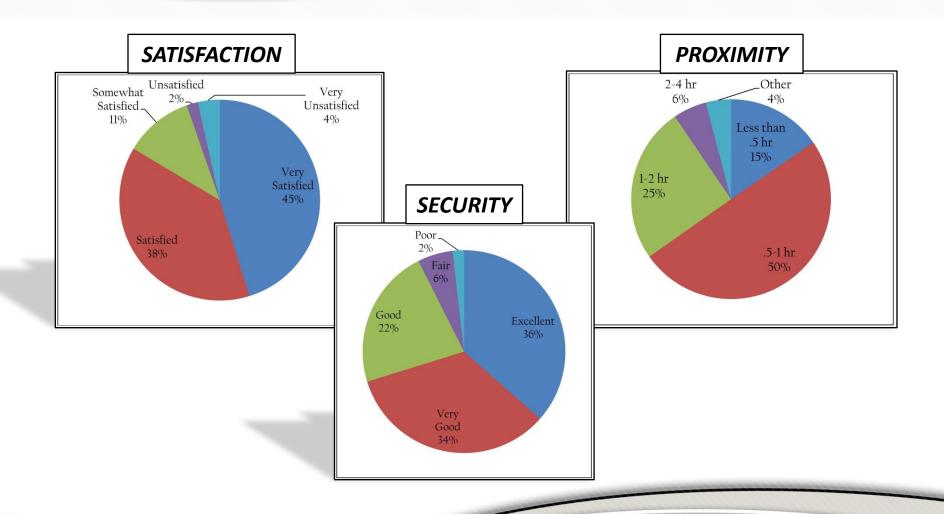


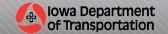
#### Other Needs

- SPACING 60 MILES OR "ABOUT 1 HOUR APART"
- SHARED SPACE FOR ENFORCEMENT OFFICERS
- SHARED USE FOR INSPECTION PERSONNEL
- REST AREA AVAILABILITY



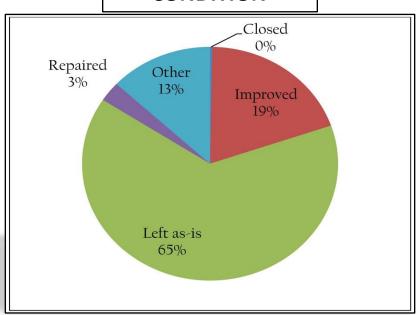
# **User Survey**



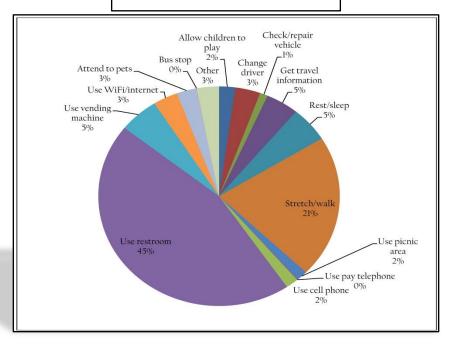


## **User Survey**

#### **CONDITION**



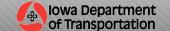
#### **PRIMARY USE**





Next Steps...

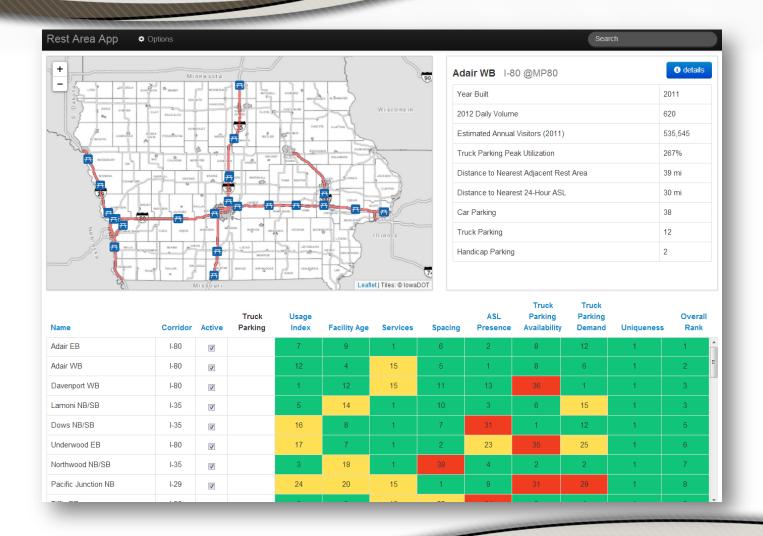
# Phase II - Implementation Plan



#### Criteria

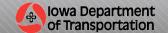
- Rest Area Usage
- Rest Area Facility Age
- Rest Area Services
- Rest Area Spacing
- Presence of 24 Hr. A.S.L.
- Truck Parking Availability
- Truck Parking Demand
- Uniqueness
- Overall Ranking







Name	Corridor	Active	Truck Parking	Usage Index	Facility Age	Services	Spacing	ASL Presence	Truck Parking Availability	Truck Parking Demand	Uniqueness	Overall Rank
Adair EB	I-80	V		7	9	1	6	2	8	12	1	1
Adair WB	I-80	(V)		12	4	15	5	1	8	6	1	2
Davenport WB	I-80	[V]		1	12	15	11	13	36	1	1	3
Lamoni NB/SB	I-35	V		5	14	1	10	3	6	15	1	3
Dows NB/SB	I-35	(V)		16	8	1	7	31	1	12	1	5
Underwood EB	1-80	(V)		17	7	1	2	23	35	25	1	6
Northwood NB/SB	I-35	V		3	18	1	38	4	2	2	1	7
Pacific Junction NB	I-29	V		24	20	15	1	9		29	1	8
Tiffin EB	1-80	<b>V</b>		6	5	15	22	34	3	4	1	8
Cedar Rapids NB	I-380	<b>V</b>		20	3	1	8	36	16	22	1	10
Wilton EB	I-80	V		2	9	1	16	29	38	6	1	10
Wilton WB	I-80	[J]		4	16	1	16	29	39	3	1	12
Tiffin WB	I-80	W.		8	12	1	22	34	3	4	1	12
Grinnell EB	I-80	<b>V</b>		9	16	1	27	7	19	20	1	14
Mitchellville WB	I-80	V		12	9	15		15	25	12	1	15
Cedar Rapids SB	I-380	V		10	19	15	8	36	19	18	1	15
Sergeant Bluff SB	I-29	<b>V</b>		15	14	1	16	25	11	31	1	17
Underwood WB	I-80	V		22	30	15	3	23	33	18	1	17
Ankeny SB	I-35	V		33	1	1	27	10	16	20	1	19
Ankeny NB	I-35	(V)		32	1	1	22	10	12	24	1	19
Victor EB	I-80	V		12	34	15	32	15	23	23	1	21
Victor WB	I-80	₩.		17	34	15	32	15	27	10	1	21
Waukee EB	I-80	V		19	30	15	20	32	23	- 11	1	23
Waukee WB	I-80	[V]		21	30	15	20	32	12	8	1	23
Grinnell WB	I-80	V		- 11	36	35		7		15	1	23
Story City SB	I-35	V		26	6	1	35	20	28	26	1	26
Pacific Junction SB	I-29	V		34	20	15	4	10		37	1	26
Mitchellville EB	I-80	[2]		26	36	15	27	15	12	17	1	28
Missouri Valley SB	I-29	₩.		25	22	15	14	21	28	31	1	29
Osceola NB	I-35	V		28	22	15	12	38	22	26	1	29
Osceola SB	I-35	[7]		28	22	15	12	38	19	36	1	
Onawa NB	I-29	V			22	15	22	25	6	29	1	
Story City NB	I-35	₹			30	15	34	19	26	26	1	
Sergeant Bluff NB	I-29	V			36	15	16	25	12		1	34
Missouri Valley NB	I-29	7		36	22	35	14	21	32	34	1	
Onawa SB	I-29	✓		37	22	15	22	25	8	35	1	
Davenport EB	I-80	V		23	36		39	13	37	8	1	
Loveland WB	I-680	7			28	39	36	4	5	38	1	38
Loveland EB	I-680	<b>V</b>		39	28	38		4	16	39	1	39



Name	Corridor	Active	Truck Parking	Usage Index	Facility Age	Services	Spacing	ASL Presence	Truck Parking Availability	Truck Parking Demand	Uniqueness	Overall Rank
Onawa NB	I-29	<b>V</b>		30	22	15	21	21	5	28	1	32
Story City NB	I-35	<b>V</b>		29	26	15	31	16	22	25	1	33
Davenport EB	I-80			-	-	-	-	-	-	-	-	-
Loveland WB	I-680			-	-	-	-	-	-	-	-	-
Missouri Valley NB	I-29			-	-	-	-	-	-	-	-	-
Onawa SB	I-29			-	-	-	-	-	-	-	-	-
Sergeant Bluff NB	I-29			-	-	-	-	-	-	-	-	-
Loveland EB	I-680			-	-	-	-	-	-	-	-	-



Name	Corridor	Active	Truck Parking	Usage Index	Facility Age	Services	Spacing	ASL Presence	Truck Parking Availability	Truck Parking Demand	Uniqueness	Overall Rank
Adair EB	1-80	NOTIVE	Farking	7	9	4	6	2	7	13	1	1
Lamoni NB/SB	1-35	[V]		5	14	1	10	3	5	15	1	2
Davenport WB	1-80	[V]		1	12	15	11	11	31	1	1	3
Adair WB	1-80			14	4	15	4	1	7	7	1	3
Dows NB/SB	I-35	<b>V</b>		16	8	1	7	25	1	11	1	5
Underwood EB	1-80	V		16	7	1	2	19	30	24	1	6
Northwood NB/SB	1-35	V		3	18	1	33	4	2	2	1	7
Pacific Junction NB	1-29	V		23	20	15	1	7	27	29	1	8
Cedar Rapids NB	1-380	V		20	3	1	8	30	13	22	1	8
Wilton EB	1-80	V		2	9	1	15	23	32	6	1	8
Wilton WB	1-80	<b>V</b>		4	16	1	15	23		3	1	11
Tiffin WB	1-80	V		8	12	1	21	28	3	4	1	11
Tiffin EB	1-80	V		6	5	15	21	28	3	4	1	11
Grinnell EB	1-80	V		9	16	1	25	5	15	17	1	14
Cedar Rapids SB	1-380	V		10	19	15	8	30	15	20	1	15
Mitchellville WB	1-80	V		12	9	15	25	12	21	11	1	16
Sergeant Bluff SB	1-29	V		15	14	1	15	21	9	30	1	17
Underwood WB	1-80	▼		22	26	15	3	19	28	17	1	17
Ankeny NB	1-35	V		31	1	1	15	8	10	23	1	19
Ankeny SB	1-35			32	1	1	21	8	13	19	1	20
Victor EB	1-80	▼		12	30	15	29	12	19	21	1	21
Victor WB	1-80	N.		18	30	15		12	23	9	1	21
Waukee EB	1-80			19	26	15	19	26	19	10	1	23
Waukee WB	1-80	<b>V</b>		21	26	15	19	26	10	7	1	23
Story City SB	1-35			25	8	1	32	17	24	25	1	23
Grinnell WB	1-80			11	32		25	5	28	16	1	26
Pacific Junction SB	1-29	W.		33	20	15	4	8	26	33	1	27
Mitchellville EB	1-80	V		25	32	15	25	12	10	13	1	
Osceola NB	1-35	V		27	22	15	12	32	18	27	1	
Missouri Valley SB	1-29	V		24	22	15	14	18	24	30	1	
Osceola SB	1-35			27	22	15	12	32	15	32	1	
Onawa NB	1-29	V		30	22	15	21	21	5	28	1	
Story City NB	1-35	V		29	26	15	31	16	22	25	1	
Davenport EB	1-80	<u> </u>		-	-	-		-	-	-		-
Loveland WB	I-680			_	_	_		_	_	_	_	_
Missouri Valley NB	1-29				_		_	_	-			
Onawa SB	1-29			-	_		-	_	-	-		
Sergeant Bluff NB	1-29							_	-	-		
Loveland EB	1-680									-		
LOYEIGHIG EB	1-000			-	-	-		-	-	-		

